

Amendments to the Claims

1. (CURRENTLY AMENDED) An active matrix display device comprising a plurality of pixels arranged in a row and column array, each pixel comprising a pixel electrode (11) to which data voltages (V_d) can be supplied by an associated data conductor (12) via a respective thin film transistor (13), wherein at least a proportion of the pixels each further comprise a body (30; 70; 80) which electrically connects the associated pixel electrode to another electrode (51; 14) in response to touch-input to the pixel, said connection being detectable via the associated data conductor.

2. (CURRENTLY AMENDED) A device according to Claim 1, further comprising a common electrode (51) spaced from and overlying the array of pixel electrodes operable to create an electrical potential between itself and each pixel electrode, wherein each of said bodies electrically connects the associated pixel electrode to said common electrode in response to touch-input to the pixel.

3. (CURRENTLY AMENDED) A device according to claim 1, wherein the thin film transistor of each pixel has a gate terminal connected to an associated select conductor (14) to which gate voltages (V_g) can be applied to control the supply of data voltages to the respective pixel electrode, and wherein each of said bodies (70) electrically connects the associated pixel electrode to the associated select conductor in response to touch-input to the pixel.

4. (CURRENTLY AMENDED) A device according to ~~any one of Claims 1, 2 or 3~~ claim 1, further comprising driver circuitry connected to each data conductor, said circuitry being arranged to operate in an addressing mode for supplying data voltages to associated pixels during respective address periods (T_a), and a sensing mode for detecting touch-input to associated pixels during respective sensing periods (T_s).

5. (CURRENTLY AMENDED) A device according to Claim 4, wherein said driver circuitry comprises a respective buffer circuit (42) connected to each data

conductor, each buffer circuit including an analogue to digital converter (43) serving to measure the current through the respective data conductor during said sensing period.

6. (CURRENTLY AMENDED) A touch-input responsive pixel in an active matrix display device, the pixel comprising a pixel electrode (11) to which data voltages (V_d) can be supplied by associated address circuitry which includes a respective thin film transistor (13) connected to the pixel electrode, and a body which electrically connects the pixel electrode to another electrode (51; 14) in response to touch-input to the pixel, said connection being detectable by said address circuitry.

7. (CURRENTLY AMENDED) A touch-input responsive pixel according to Claim 6, further comprising a second electrode (51) spaced from and at least partly overlying said pixel electrode, wherein said body electrically connects the pixel electrode to said second electrode in response to touch-input to the pixel.

8. (CURRENTLY AMENDED) A touch-input responsive pixel according to Claim 6, wherein the thin film transistor has a gate terminal to which gate voltages (V_g) can be applied to control the supply of data voltages to said pixel electrode, and wherein said body electrically connects the pixel electrode to said gate terminal in response to touch-input to the pixel.

9. (CURRENTLY AMENDED) A touch-input responsive pixel according to ~~any one of Claims 6 to 8~~ claim 6, wherein said body comprises a pressure-sensitive element (70) having an electrical resistance which changes in response to applied pressure.

10. (CURRENTLY AMENDED) A touch-input responsive pixel according to ~~Claim 6 or Claim 8~~ Claim 6, wherein said body comprises a photoconductive element (80) having an electrical resistance which changes in response to light of a predetermined wavelength incident thereon.

11. (CURRENTLY AMENDED) A touch-input responsive pixel according to ~~any one of Claims 6 to 10~~ Claim 6, wherein at least part of said body overlies and directly contacts said pixel electrode.

12. (CURRENTLY AMENDED) A touch-input responsive pixel according to Claim 7, wherein said body comprises a conducting material ~~(30)~~ and is disposed between the pixel electrode and said second electrode.

13. (CURRENTLY AMENDED) A method of sensing touch-input to an active matrix display device comprising a plurality of pixels each comprising a pixel electrode ~~(11)~~, the method comprising the steps of:

- supplying data voltages ~~(V_d)~~ to said pixel electrodes via associated data conductors ~~(12)~~ during respective address periods ~~(T_a)~~; and,
- measuring a signal on each of said data conductors during respective sensing periods ~~(T_s)~~ to detect touch-input to the display.

14. (CURRENTLY AMENDED) A method according to Claim 13, wherein said pixels are arranged in a row and column array and are selected one row at a time during respective row periods ~~(T_r)~~ to allow data voltages on the data conductors to be applied to the associated pixel electrodes on the selected row, and wherein each row period comprises an address period ~~(T_a)~~ and a sensing period ~~(T_s)~~.

15. (ORIGINAL) A method according to Claim 14, wherein each sensing period follows an address period.

16. (CURRENTLY AMENDED) A method according to ~~any one of Claims 13 to 15~~ claim 13, wherein said measuring step comprises integrating the current on each of said data conductors for the duration of said respective sensing period.